

[| NODIS Library](#) | [Legal Policies\(2000s\)](#) | [Search](#) |

NASA Policy Directive

NPD 2830.1

Effective Date: December 16, 2005

Expiration Date: December 16, 2010

COMPLIANCE IS MANDATORY[Printable Format \(PDF\)](#)

Subject: NASA Enterprise Architecture**Responsible Office: Office of the Chief Information Officer****1. POLICY**

a. This directive establishes the policy and responsibilities for NASA's Enterprise Architecture (EA).

b. The NASA Enterprise Architecture (EA) guides the investment and management process to maximize the contribution of information technology (IT) to Agency success. Effective NASA EA management shall ensure that IT expenditures are aligned with Center, Mission Directorate, and Agency goals while reducing unnecessary duplication of both material expenditures and efforts. The NASA EA shall also provide a vision of the future state of new capabilities that will allow detailed planning to occur in conjunction with Agency and Federal Government level initiatives and mandates.

c. The NASA EA identifies the policies and procedures for planning, executing, and maintaining IT investments throughout the Agency. The NASA EA presents a snapshot of the current state of the enterprise (both business and technical) and the plan for the future that includes associated improvements in business processes and supporting systems, data, and technologies. The NASA EA is a composition architecture and set of reference models that map all IT initiatives and services to the strategic goals and objectives delineated in the Agency's strategic and performance plans. The NASA EA is updated semiannually through submission of its component EA volumes.

d. The NASA EA is one of the strategies for ensuring that NASA complies with the eight major information systems criteria defined under the Clinger-Cohen Act:

- (1) Supports core/priority enterprise mission functions.
- (2) Manages IT investments.
- (3) Simplifies or redesigns work processes to reduce costs and improve effectiveness.
- (4) Demonstrates a positive cost versus benefit analysis.
- (5) Ensures proposed IT systems are consistent with the Agency's EA.
- (6) Reduces risks.
- (7) Implements IT projects in successive phases.
- (8) Employs an IT acquisition strategy.

2. APPLICABILITY

This directive applies to NASA Headquarters and NASA Centers, including Component Facilities, the Jet Propulsion Laboratory to the extent specified in its contract, and NASA contractors to the extent specified in their respective contracts. The Office of the Chief Information Officer (OCIO) and the Office of Procurement are preparing contract language to ensure all future contracts require conformance to the NASA EA. All future NASA contractors will be required to comply with the NASA EA.

3. AUTHORITY

- a. 40 U.S.C. ^{oo} 11101 et seq., Clinger-Cohen Act of 1996, also known as the Information Technology Management Reform Act, as amended.
- b. 5 U.S.C. ^o 552a, Privacy Act of 1974, as amended.
- c. 29 U.S.C. ^o 794(d), Rehabilitation Act of 1973, as amended.
- d. 31 U.S.C. ^{oo} 501 et seq., Chief Financial Officers Act of 1990, as amended.
- e. 40 U.S.C. ^o 11331, Computer Security Act of 1987: Responsibilities for Federal Information Systems Standards, as amended.
- f. 31 U.S.C. ^{oo} 1101 et seq., Government Performance and Results Act of 1993, as amended.
- g. 41 U.S.C. ^o 251, Federal Acquisition Streamlining Act of 1994, as amended.
- h. 44 U.S.C. ^{oo} 101 et seq. and 44 U.S.C. ^{oo} 3501 et seq., Paperwork Reduction Act of 1995, as amended.
- i. 44 U.S.C. ^{oo} 3601 et seq., E-Government Act of 2002: Management and Promotion of Electronic Government Services, as amended.
- j. 44 U.S.C. ^o 3504, Government Paperwork Elimination Act of 1998, as amended.
- k. 40 U.S.C. ^o 11311, Federal Information Security Management Act (FISMA) of 2002: Responsibilities for Acquisitions of Information Technology, as amended.

4. REFERENCES

- a. President's Management Agenda, 2002.
- b. NASA Policy Directives and Requirements.
 - (1) NPD 2800.1A, August 18, 2004.
 - (2) NPR 2800.1, September 17, 2004.
 - (3) NPD 7120.4, Program/Project Management, December 1999.
 - (4) NPR 7120.5, NASA Program and Project Management Processes and Requirements, March 2005.
 - (5) NPR 7150.2, NASA Software Engineering Requirements.
 - (6) NPD 1000.3, The NASA Organization w/Change 14, August 2005.

5. RESPONSIBILITY

a. NASA, under the direction of the Agency's Chief Information Officer (CIO), shall develop and maintain the NASA EA that shall serve as the primary authoritative resource for IT planning and execution.

b. The NASA CIO, via an appointed Chief Enterprise Architect, shall disseminate and/or make available the contents of the NASA EA. Personnel responsible for IT planning, development, and implementation shall periodically review the NASA EA to ensure that their IT projects are in compliance with the EA and that it supports the strategic goals of the Agency.

c. All IT initiatives and services shall comply with the approved NASA EA. The Chief Enterprise Architect will institute criteria and processes to review adherence of NASA IT initiatives and services to the NASA EA. The NASA CIO maintains oversight responsibility for all IT investments in the Agency, which are classified in three distinct categories:

(1) Office Automation and Infrastructure Technology (OAIT) - Core IT services provided across the NASA community (e.g., desktop computing, telecommunications).

(2) Multi-Program/Project - IT services used to support multiple projects within a given Mission Directorate (e.g., The NASA Columbia Supercomputing Facility, systems typically containing primarily Class F software as defined in NPR 7150.2).

(3) Program/Project-Unique - IT services to provide IT and data management services for a particular mission. These are generally funded at the mission project level and are managed as a project work element.

d. The NASA CIO has delegated NASA EA reporting and review responsibilities as follows:

(1) Office Automation and Infrastructure Technology (OAIT) - The Office of the CIO assigned program managers are responsible for providing semiannual updates to the NASA EA and for conducting EA project reviews and service reviews.

(2) Multi-Program/Project - The Mission Directorate program managers and Mission Directorate CIO's are responsible for providing semiannual updates to the NASA EA and for determining if EA project reviews or annual service reviews are required in accordance with NASA Policy.

(3) Program/Project Unique - The Mission Directorate program managers and Mission Directorate CIOs are responsible for providing semiannual updates to the NASA EA and for determining if EA project reviews are required in accordance with NASA Policy.

e. The NASA CIO Board is the primary consumer of NASA EA information, and use of the NASA EA by the entire NASA IT community is highly encouraged to enable better capital planning, commonality, and reuse.

f. The day-to-day responsibility for the NASA EA shall be carried out by the NASA Chief Enterprise Architect or a designee who serves as the Chief Enterprise Architect.

g. An Architecture Core Team consisting of IT experts, business line experts, and technologists shall serve as NASA EA advisors to the Chief Enterprise Architect.

6. DELEGATION OF AUTHORITY

None.

7. MEASUREMENTS

These high-level measurements are intended as guides in data gathering to allow the Agency EA team to make assessments and develop courses of action for the dynamic NASA EA environment.

- a. Currency of the As-Is section of the NASA EA (e.g., number of outdated entries, number of missing entries).
- b. Accuracy of To-Be section (evaluated retrospectively).
- c. Adherence to the NASA EA (e.g., count of systems, dollar value of consonant systems).
- d. Deviations from NASA EA. (e.g., count, dollar value of nonadhering systems).
- e. NASA EA awareness (e.g., via Web-based or other survey).
- f. Cost to administer the NASA EA.
- g. Cost savings from the NASA EA (e.g., via cost avoidance).

8. CANCELLATION

None.

/s/ Frederick D. Gregory
Acting Administrator

ATTACHMENT A: (TEXT)

(URL for Graphic)

DISTRIBUTION: **NODIS**

This Document Is Uncontrolled When Printed.
Check the NASA Online Directives Information System (NODIS) Library
to Verify that this is the correct version before use: <http://nodis3.gsfc.nasa.gov>
